UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,347	06/27/2001	Donald Henry Willis	PU010055	3517

7590 06/21/2006

THOMSON multimedia Licensing Inc.
Patent Operations
P.O. Box 5312
Two Independence Way
Princeton, NJ 08543-5312

EXAMINER	
DHARIA, PRABODH M	
ART UNIT	**PAPER NUMBER**
2629	

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/892,347	WILLIS, DONALD HENRY	
	Examiner	Art Unit	
	Prabodh M. Dharia	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application. Cancelled.

4a) Of the above claim(s) *16 and 17* is/are ~~withdrawn from consideration~~.

5)☒ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-15* is/are rejected.

7)☒ Claim(s) *4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. **Status:** Please all the replies and correspondence should be addressed to examiner's new art unit 2629. Receipt is acknowledged of papers submitted on 05-25-2006 under request for reconsideration, which have been placed of record in the file. Claims 1-15 are pending in this action. Claims 16,17 are cancelled.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 and 5-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Willis et al. (US 2002/0126079 A1).

Regarding Claim 1, Willis et al. (US 20002/0126079 A1) teaches a method for reducing sparkle artifacts in a liquid crystal imager (page 2, paragraph 14, Lines 1-4, paragraph 16), comprising the steps of: gamma correcting a video drive signal page 2, paragraph Lines 1-5); and slew rate limiting at least a portion of said gamma corrected video drive signal slew rate limits portion of post gamma correction video (page 2, paragraph 14, Lines 21-25, paragraph 15).

Regarding Claim 2, Willis et al. (US 20002/0126079 A1) teaches step of gamma correcting further comprises the step of producing an output containing a red gamma corrected

video drive signal component, a blue gamma corrected video drive signal component, and a green gamma corrected video drive signal component (page 2, paragraph 16, Lines 6-10, paragraph 17, Lines 1-3, paragraph 19, Lines 1-5).

Regarding Claim 3, Willis et al. (US 20002/0126079 A1) teaches at least one of said gamma corrected video drive signal components is slew rate limited (page 2, paragraph 14, Lines 21-25, paragraph 15, Lines 4,5, paragraph 19, Lines 1-5).

Regarding Claim 5, Willis et al. (US 20002/0126079 A1) teaches the further steps of independently selecting slew rate limits for each of said gamma corrected video drive signal components (page 2, paragraph 16, page 3, paragraph 32, Lines 1-12, 16,17).

Regarding Claim 6, Willis et al. (US 20002/0126079 A1) teaches an apparatus (page 2, paragraph 26, Lines 1-3) for reducing sparkle artifacts in a liquid crystal imager (page 2, paragraph 14, Lines 1-4, paragraph 16), comprising the steps of: gamma correcting a video drive signal page 2, paragraph Lines 1-5); and slew rate limiting at least a portion of said gamma corrected video drive signal slew rate limits portion of post gamma correction video (page 2, paragraph 14, Lines 21-25, paragraph 15).

Regarding Claim 7, Willis et al. (US 20002/0126079 A1) teaches a video display system for a liquid crystal imager having a circuit for reducing sparkle artifacts in said liquid crystal imager (page 2, paragraph 26, Lines 1-3, paragraph 14, Lines 1-4, paragraph 16), said circuit

comprising: a color space converter for color space converting said video drive signal, wherein said gamma correcting device gamma corrects said color space converted video drive signal (page 2, paragraphs 16, 17, page 3, paragraphs 35,36).

Regarding Claim 8, Willis et al. (US 20002/0126079 A1) teaches circuit further comprising means for frame rate multiplying said color space converted video signal prior to said frame rate multiplied video signal being gamma corrected (page 2, paragraphs 16, 17, page 3, paragraphs 35-38, page 4, paragraph 38).

Regarding Claim 9, Willis et al. (US 20002/0126079 A1) teaches gamma corrected video drive signal further comprises a red gamma corrected video drive signal component, a blue gamma corrected video drive signal component, and a green gamma corrected video drive signal component (page 2, paragraph 16, Lines 6-10, paragraph 17, Lines 1-3, paragraph 19, Lines 1-5).

Regarding Claim 10, Willis et al. (US 20002/0126079 A1) teaches means for independently selecting slew rate limits for each of said gamma corrected video drive signal components (page 2, paragraph 14, Lines 21-25, paragraph 15, Lines 4,5, paragraph 19, Lines 1-5).

Regarding Claim 11, Willis et al. (US 20002/0126079 A1) teaches slew rate limiter further comprises a means for assuring that successive output signals from said slew rate limiter

will not vary by more than a predetermined slew rate (page 3, paragraph 31, Lines 5-8).

Regarding Claim 12, Willis et al. (US 20002/0126079 A1) teaches slew rate limiter further comprises: an algebraic unit for providing a difference signal representative of a difference between said gamma corrected video drive signal and a preceding gamma corrected slew rate limited output; a latch for storing said preceding gamma corrected slew rate limited output; at least one comparator for determining whether said difference exceeds said predetermined slew rate; and a second algebraic unit for adding the output from said at least one comparator to a brightness level of a previous slew rated limited output pixel to generate a next new pixel (page 3, paragraph 33, page 2, paragraph 14, lines 21-25, paragraph 19).

Regarding Claim 13, Willis et al. (US 20002/0126079 A1) teaches at least one comparator comprises a first comparator for determining whether said difference signal is greater than a predetermined positive slew rate and a second comparator for determining whether said difference signal is more negative than a predetermined negative slew rate (page 3, paragraph 32).

Regarding Claim 14, Willis et al. (US 20002/0126079 A1) teaches the absolute value of said predetermined positive slew rate and the absolute value of said predetermined negative slew rate are equal (page 3, paragraph 33).

Regarding Claim 15, Willis et al. (US 20002/0126079 A1) teaches slew rate limiter further comprises a multiplexer that uses the most significant bit of said difference signal as a control input for selecting an output among said first comparator and said second comparator (page 3, paragraph 32).

Allowable Subject Matter

4. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is an examiner's statement of reasons for allowance:

An apparatus for reducing sparkle artifacts in a liquid crystal imager, comprising: a device for gamma correcting a video drive signal for providing a gamma corrected video drive signal; and **a slew rate limiting at least a portion of said gamma corrected video drive signal; the further steps of: deinterlacing said video drive signal to provide a deinterlaced video signal; color space converting said deinterlaced video signal; and frame rate multiplying said color space converted video signal, said further steps taking place prior to gamma correcting said frame rate multiplied video drive signal.**

The cited reference in the 892's fails to recite or disclose above underlined bold claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

6. Applicant's arguments, see remark, filed 05-26-2006, with respect to the rejection(s) of claim(s) 1-3,5,6 and 11 under arguments have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Willis et al. (US 20002/0126079 A1).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brownlow, Michael James et al. (US 20020041245 A1) Digital-to-analog converter and active matrix liquid crystal display.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M. Dharia whose telephone number is 571-272-7668. The examiner can normally be reached on M-F 8AM to 5PM.

9. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

PD

AU2629

06-09-2006

BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600